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	DILLETION		201 001105	Application Number			
INFO	INFORMATION DISCLOSURE STATEMENT BY APPLICANT			Filing Date			
STA.				First Named Inventor	Kia Silverbrook		
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			U.S. PATE	NT DOCUMENTS	
Examiner Initials	Cite No.1	Document Number Number - Kind Code ² (if known	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		us-5,719,604 *	Feb 17, 1998	Inui et al	
		∪s-5,666,141 *	Sep 09, 1997	Matoba et al	
		us4,672,398 *	Jun 09, 1987	Kuwabara et al	
		us4,737,802 *	Apr 12, 1988	Mielke	
		<u>us-5,029,805_*</u>	Jul 09, 1991_	Albarda_et_al	
		US-5,258,774 *	Nov.02, 1993	Rogers	
		US-4,553,393.*	_Nov_19,_1985	Ruoff	
		US-4,864,824 *	_Nov_12,_1989	Gabriel.et.al	
		US-4.423.401.*	-Dec 27,-1983	Mueller	
		US-1.941.001 *	-Jan-1929	Hansell	
		L ^{US} 3,596,275 *	-Jul-197-1	Sweet	
		US3.373.437 *	-Mar-1968	Sweet-et-al	
		∪ ₂ -2 04€ 200 *	-Mar-1976	Kyser-et-al	
		US-3,683,212 *	-Aug-1972	Zoltan	
		US-3,747,120 *	-Jul-1973	Stemme	
		US-3,546,536 US-3,683,212 * US-3,747,120 * US-4,459,601 * US-4,5459,601 *	-Jul-1984	Howkins	
		us-4,584,590 *	-Apr-1986	Fischbeck-et-al	
		us-4;490,728 *	-Dec 1984	Vaught et al	
		us-4.899.181 *	Dec 1990	Hawkins et al	

		FOR	<u>EIGN PATENT D</u>	OCUMENTS		
Examiner Initials	Cite No. ¹	Foreign Patent Document Country Code3 -Number4 - Kind Code5 (# known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T
		EP 0 713 774 *	May 29, 1996	Sharp Kabushiki Kaisha		
***************************************	i	DE 195 16 997 *	Nov 16, 1995	Sharp K.K		i
	 	DE-196-23-620-*	Dec-19,-1995	Sharp K:K		ļ
		JP-2-108544 (Abstract) *	Apr 20, 1990-	Seiko Epson Corp		
		JP-2-92643 (Abstract) *	-Apr 03, 1990	Seiko Epson Corp	**************************************	
		JP 4-353458 (Abstract) *	Dec 08;-1992	-Brother Ind Ltd		!—
		JP-6-91865 (Abstract) *	-Apr-05,-1994	Seikosha-Co-Ltd	·	
		JP-6-91866 (Abstract) *	Apr-05,-1994	Seikosha Co Ltd		ļ
		JP_2-265752 (Abstract) *	Oct 30, 1990	Matsushita Electronic Ir	d-Co-Ltd	ļ
		EP 0 634 273 *	Jan_18,_1995	Sharp Kabushiki Kaisha		<u> </u>
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STA				First Named Inventor	Kia Silverbrook	
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			U.S. PATE	NT DOCUMENTS	
Examiner Initials		Document Number Number - Kind Code ² (If known	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US- 6,416,167 *	Jul.9,.2002_	Silverbrook	
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		DE 195 32 913 *	Mar 28, 1996	Sharp K.K		
	i	JP 58 112747 (Abstract) *	Jul 05, 1983	Fujitsu KK		·i
	 	DE-43-28-433-*	-Mar-02,-1995	-Heidleberger-Druckmasch	inen-AG	
	ļ	JP 61 025849 (Abstract) *	_Feb.04,_1986	Canon Inc		
	<u> </u>	JP 01 128839 (Abstract) *	May 22, 1989	Ricoh Co Ltd		<u> </u>
		JP 04 126255 (Abstract) *	Apr 27, 1992	Seiko Epson Corp		
	i	GB 2 262 152 *	Jun 09, 1993	Willett Int Ltd		ii
	l	DE-195-16-997-*	*Nov*16, 1995	Sharp K:K		
		JP 05-318724 (Abstract *	-Dec-03,-1993	-Seikosha Co Ltd		
<u> </u>	<u> </u>	JP_02_162049 (Abstract) ************************************	Jun.21,_1990	Seiko Epson Corp	<u>~</u>	
J		DE 32 45 283 *	Jun 07, 1984	Siemens AG		
		JP 04 368851 (Abstract) *	Dec 21, 1992	Seiko Epson Corp		

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			U.S. PATI	ENT DOCUMENTS	
Examiner Initials	Cite No. ¹	Document Number Number - Kind Code ² (if known	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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		JP 02 158348 (Abstract) *	Jun 18, 1990	Minolta Camera Co Ltd						
		JP 03 112662 (Abstract) *	May 14, 1991	Seiko Epson Corp		ii				
	 	JP-03-653348 (Abstract) *	Mar 20, 1991	Matsushita Electric Ind Co						
	ļ	EP 0 431 338 *	Jun 12, 1991	Matsushita Electric Ind Co						
	<u> </u>	JP_01_257058_*	Oct 13, 1989	Seiko Epson Corp						
		DE 195 17 969 *	Nov 30, 1995	Sharp K.K						
		DE 196 39 717 *	Apr 17, 1997	Sharp K.K		ii				
	i	EP 0 737 580	Oct 16, 1996	Canon K.K						
		EP 0 882 590 *	Dec 09, 1998	Canon K.K		!				
		EP 0.478.956	Apr-08,-1992	Kernforschungsz-Karlshrul	e GMBH	ļ				
		DE 1 648 322 *	Mar 24, 1971	VDO Tachometerwerke Gi						
i		GB 1 428 239 *	Mar 17, 1976	Cibie Proiecteurs	-	[

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STA				CANT	First Named Inventor	Kia Silverbrook	
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			U.S. PATE	ENT DOCUMENTS	
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	<del></del>	DE 39 34 280 *	Apr 26, 1990	CAE di Cipelletti Alberto	i	H				
		DE 29 05 063 *	Aug 14, 1980	Olympia Werke AG						
	ļ	-WO 94-18010 *	-Aug-18,-1994	Domino Printing Sciences	PLC	ļ				
<u> </u>	<u> </u>	EP 0 398 031 *	Nov 22, 1990	Seiko Epson Corp		<u> </u>				
		EP 0 427 291 *	May 15, 1991	Seiko Epson Corp						
	i	JP 01 115639 (Abstract) *	May 08, 1989	Ricoh Co Ltd		i				
		JP 58 116165 (Abstract) *	Jül 11, 1983	Canon K.K	[					
	<b>!</b>	EP 0 627-314-*	-Dec 07;-1994	Olivetti Canon Ind SPA-						
	<u> </u>	JP-61-268453 (Abstract) *	-Nov-27,-1986	Olympus Optical Co Ltd	<u> </u>	ļ				
	l	JP 04 118241 (Abstract) *	Apr. 20, 1992	Seiko Epson Corp		<u></u>				
	1	EP 0 506 232 *	Sep 30, 1992	Videojet Systems Int, Inc	1					
	i	JP 07 314665 (Abstract) *	Dec 05, 1995	Canon Inc		ii				

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Initials	INO.	Country Code 3 - Number 4 - Kind Code 5 (# known)	MM-DD-YYYY	7 PPINGEN OF GROOT DOCUMENT	or Relevant Figures Appear	T ⁶				
		JP 03 180350 *	Aug 06, 1991	Seiko Epson Corp						
		WO 97 12689 *	Apr 10, 1997	The Board of Trustees of the Stanford University	e Leland					
		JP 02 050841 (Abstract) *	Feb 20, 1990	Seiko Epson Corp		<u> </u>				
		EP 0 510 648	Oct 28, 1992	Ivri_Yehuda		ll				
	1		Oct 29, 1993	Canon Inc						
	İ	JP 04 141429 (Abstract) *	May 14, 1992	Seiko Epson Corp		i				
	i	JP 01 105746 (Abstract)	Apr 24, 1989	Ricoh Co. Ltd						
	<b> </b>	GB-792-145-*	Mar-19,-1958	Technograph Printed Circu	ts-Ltd					
	ļ	EP-0-750-993 *	Jan 02,-1997	Canon K.K.						
<u> </u>	<u> </u>	JP_01_306254 (Abstract) *	Dec_11,_1989	Seiko Epson Corp						
		EP 0 092 229 *	Oct 26, 1983	Siemens AG						

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		DE 37 16 996 *	Dec 08, 1988	VDO Schindling		
	<u> </u>	DE 34 30 155 * FR-2-231-076 *	Feb 27, 1986 -Dec-20,-1974	Siemens AG  Electricite De France		
		GB 2 007 162 *	_May_1979	Electricité De l'italice		
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				First Named Inventor	Kia Silverbrook	
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OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS							
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		NOWOROLSKI, J. MARK et al, "Process for in-plane and out-of-plane single-crystal-silicon thermal microactuators". Sensors and Actuators, A, CH, Elsevier-Sequoia-S-A-, Lausanne, Vol-55, no1, 15-July-1996, pp-65-69;					
		XP004077979 ISSN: 0924-4247. *					
		ATAKA, MANABU et al, "Fabrication and Operation of Polymide Bimorph Actuators for Ciliary Motion System". Journal of Microelectromechanical Systems, US, IEEE Inc. New York, Vol. 2, no. 4, 1 December 1993, pp 146-150,	}_				
		XP000443412, ISSN: 1057-7157.*					
		YAMAGATA, YUTAKA et al, "A Micro Mobile Mechanism Using Thermal Expansion and its Theoretical Analysis". Proceeding of the workshop on micro electro mechanical systems (MEMS), US, New York, IEEE, Vol. Workshop 7, 25	-				
		January-1994,-pp-142-147,-XP000528408,-ISBN:-0-7803-1834-X*					
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